

Town of Amherst
Zoning Board of Appeals

SPECIAL PERMIT

The Amherst Zoning Board of Appeals hereby grants a Special Permit, ZBA FY2012-00002, to install twelve (12) wireless communication antennas on an existing smokestack and install new radio equipment cabinets, under Section 3.340.2 of the Zoning Bylaw, at 151 College Street (Map 14B, Parcel 165, ED Zoning District), with the following conditions:

1. Prior to the issuance of a building permit for the installation of the antenna, the smokestack shall be improved substantially in accordance with the structural improvements identified in the Structural Analysis and Reinforcement Design, prepared by Centek Engineering, revised May 16, 2011.
2. Prior to the issuance of a building permit for a wireless communications use, Sprint shall post and submit a bond or other financial surety acceptable to the Town, to Inspection Services in an amount sufficient to cover the cost of demolishing and/or removing the facility in the event the Building Commissioner condemns the property or deems it to have been abandoned or vacant for more than one year. Said amount shall be certified by an engineer, architect or other qualified professional registered to practice in the Commonwealth of Massachusetts. In the event the posted amount does not cover the cost of demolition and/or removal, the Town may place a lien upon the property covering the difference in cost.
3. The antennas and the elevated equipment cabinets shall be constructed and installed substantially in accordance with the plans prepared by Centek Engineering, last revised on August 24, 2011, and stamped approved by the Zoning Board of Appeals on August 25, 2011.
 - a. Any substantial changes to the approved plans shall be reviewed by the Zoning Board of Appeals at a public meeting in order to determine whether any changes require a new Special Permit.
4. The facility shall be managed as described in the Management Plan, stamped approved by the Zoning Board of Appeals on August 25, 2011.
 - a. Any substantial changes to the approved Management Plan shall be reviewed by the Zoning Board of Appeals at a public meeting in order to determine whether any changes require a new Special Permit.
5. All structures associated with the wireless communication use shall be located within a six foot high chain link fence secured by either a gate or lock. To the maximum extent possible, the applicant shall work with the other carriers and/or Amherst College to ensure that the chain link fence is completed in order to fully enclose the facility.
6. Sprint shall submit to the Building Commissioner copies of all licenses and permits required and shall provide an inspection schedule and file copies of inspections with the Building Commissioner, upon request.

7. The cable tray and the antennas shall be painted a color to match the smokestack. The minimum amount of exposed coaxial cable shall be allowed in area between the cable tray and the antenna equipment.
8. Sprint shall maintain its wireless communication facility in good order and repair. All paint finishes shall be maintained and repaired when blemishes are visible from the property line(s).
9. No signs shall be erected on-site except for a small sign on the equipment platform showing cell site ownership and emergency contact information.
10. All exterior lighting shall be downcast and shall consist of the minimum necessary for security purposes.

Hilda Greenbaum, Acting Chair
Amherst Zoning Board of Appeals

DATE

Zoning Board of Appeals - Special Permit*DECISION*

Applicant: Sprint Spectrum L.P.
40 Hartwell Avenue, Lexington, MA
c/o Eric Dahl
55 Lynn Road
Ivoryton, CT 06442

Owner: Trustees of Amherst College

Date application filed with the Town Clerk: July 19, 2011

Nature of request: To install twelve (12) wireless communication antennas on an existing smokestack and install new radio equipment cabinets, under Section 3.340.2 of the Zoning Bylaw

Address: 151 College Street (Map 14B, Parcel 165, ED Zoning District)

Legal notice: Published on August 10, 2011 and August 17, 2011 in the Daily Hampshire Gazette and sent to abutters on August 10, 2011

Board members: Hilda Greenbaum, Mark Parent, Keith Langsdale

Staff members: Jeff Bagg, Senior Planner and David Waskiewicz, Building Inspector

Submissions:

- Project Application Report, dated August 19, 2011, submitted by Town staff
- ZBA application, filed on July 19, 2011
- Sprint letter, July 5, 2011 including Zoning Bylaw review, 10.38 findings, Radio Frequency information and a Management Plan
- Title Sheet, Locus Map and Plans and Elevations, prepared by Centek Engineering, dated June 28, 2011
- Structural Analysis and Reinforcement Design, prepared by Centek Engineering, revised May 16, 2011
- Photographic Documentation and Simulations
- Site photographs, submitted by Town staff
- ZBA FY2004-00045, AT & T, submitted by Town staff
- ZBA FY2006-00011, Verizon, submitted by Town staff

Site Visit: August 22, 2011

Hilda Greenbaum, Mark Parent, Keith Langsdale, and the Senior Planner met the applicant's representative, Eric Dahl, on-site. The following was observed:

- The location of the property along the south side of College Street and the existing steam plant on the southwest side of the property.
- The locations of the existing smokestack and the existing AT & T and Verizon ground mounted equipment cabinets and antennas.

- The approximate locations of the proposed equipment platform above the AT & T equipment cabinet and the existing coaxial cable tray along the east side of the smokestack.
- The location of a partial chain link fence along the top of the slope adjacent to the parking area and at the vehicle entrance to the steam plant.

Public Hearing: August 25, 2011

The applicant's consultant, Eric Dahl, spoke regarding the application. Mr. Dahl's statements are summarized as follows:

- Sprint PCS is seeking a Special Permit in order to install a wireless communication facility. The premise is located in ED Zoning District and is currently improved with a 150 foot smokestack used for the heating facility of Amherst College and that currently supports the equipment of AT & T and Verizon.
- The proposal is to install 12 panel antennas on the existing smokestack. The revised drawings include an elevation of the smokestack shows the six proposed antenna at 112 feet and six antennas at 105 feet above ground level. The elevation drawing also shows the location of AT & T's antennas at 142 feet and Verizon's at 132 feet.
- The antennas would be banded directly to the smokestack and are proposed at different elevations for structural reasons.
- A structural analysis was submitted which shows that after the structural reinforcements are completed, the smokestack will be able to support Sprint's proposed equipment. Additionally, although it is not part of this application, the stack would also be able to support additional expansion of the other carriers. The three carriers worked together on preparing the structural analysis.
- Sprint is proposing to install an elevated equipment frame over the existing AT& T equipment shelter. The equipment cabinets will be located on the metal platform because the college is limited for space and that environmental testing showed possible contamination of soil in that area. In order to minimize ground disturbance, the cabinets are elevated. Sprint has received written consent from AT & T to install the platform over their equipment.
- The revised drawings show two potential future cabinets in order to eliminate the need to come back if the ground mounted equipment is expanded in the future. The antenna size, style and location would remain the same as shown on the plans.
- Coaxial cables will be run from the equipment cabinets to the smokestack, then up the side of the smokestack. The cables will be mounted on the smokestack within an enclosed cable tray painted to match the smokestack. The antennas and banding equipment will also be painted to match.
- The submitted materials show that there is a coverage gap that the proposed antennas will fill and that the proposal will meet all applicable FCC regulations.
- Motion detector spot lights will be mounted onto the equipment frame. The purpose of the lighting is for security purposes and can be adjusted not to shine onto adjacent properties.
- The photo simulations show the existing and proposed conditions from various locations in the vicinity.

Mr. Langsdale asked if the cable tray will go all the way to the antenna or whether some of the coaxial cables would be exposed. Mr. Dahl stated that there would likely be approximately 1 or 2 feet of cables exposed near the antennas.

The Board members discussed the security fence around the facility and noted that during the site visit only a partial chain link fence was in place. The Board expressed concern that the partial fence would create a potential safety hazard and discussed whether a condition should require the applicant to complete the installation of the six foot chain link fence. The Board noted that subsection H of Section 3.340.2 of the Zoning Bylaw requires that the facility be protected from entrance by the public.

The Board reviewed the proposal and the requirements of Section 3.340.2, Wireless communications facility or other similar communications use, and made the following findings:

The following standards and conditions shall apply to commercial and public wireless communication uses and facilities:

1. Setback & Height. Towers, antenna, antenna support structures and other vertical elements of wireless communication facilities located in a residential district or upon a property abutting a residential use shall be set back from the nearest residential lot line a distance at least equal to their height. In all districts, the height of wireless communications towers shall not exceed 125 feet above the ground. In non-residential districts, the Permit Granting Authority may allow a lesser setback or greater height if such modification provides adequate safety, promotes co-location or improves design, and will not significantly impact the character and appearance of the neighborhood. In making a request for a lesser setback, the manufacturer or qualified licensed designer shall certify that the tower is designed to collapse upon itself in the event of failure. The Permit Granting Authority may also allow lesser setbacks necessary to allow for the use of an existing structure. Sprint's proposed installation conforms to these standards as the revised plans show that the centerline of the two sets of antenna will be at 105 feet and 112 feet Above Base Plate (ABP). The Board members found that because the applicant maintains a 10 foot leasehold, the maximum height of the antenna shall be 117 feet ABP. The setbacks from the rear and side property lines are 165 feet, 260 feet, and 120 feet respectively.

2. Design provisions for such facilities shall include, but are not limited to:

a. No new tower shall be used which involves a lattice construction, requires three (3) or more legs and/or requires guy wire supports. Sprint's installation will be located on the existing smokestack and does not involve the construction of a new tower.

b. No tower or other facility structure shall contain any signs or other devices for the purpose of advertisement. A sign showing cell site ownership and emergency telephone numbers will be located on Sprint's equipment platform, but no advertisement(s) will be located on or near Sprint's facility.

c. The visible portions of support facilities and structures such as vaults, equipment buildings or enclosures and utilities shall be constructed out of and/or finished with non-reflective materials. As identified in Sprint's written submission, the elevated equipment platform will be non-reflective and constructed out of galvanized steel.

d. All towers, antenna, antenna support structures and similar facilities shall be of neutral colors that are harmonious with, and blend with, the natural features, buildings and structures in the surroundings; provided, however, that such facilities located on the exterior of a building shall be of colors that match and/or blend with those of the building. Sprint's antennas will be painted to match the color of smokestack. Additionally, the coax cables will be run inside a cable tray mounted to the exterior of the smokestack and painted to match.

e. All building-mounted facilities shall be designed and located so as to appear to be an integral part of the existing architecture of the building. Not applicable.

f. All electronic and other related equipment and appurtenances necessary for the operation of any wireless communication facility shall, whenever possible, be located within a lawfully pre-existing structure or completely below grade. When a new structure is required to house such equipment, the citing, design and materials of said structure shall be harmonious with, and blend with, the natural features, buildings and structures in the surroundings. A lack of physical space inside the existing heating plant, as well as outside near the base of the smokestack, necessitated that Sprint propose to install its equipment on an elevated platform above the existing AT&T shelter. Additionally, the lack of available space near the smokestack, as well as existing environmental conditions which would prevent Sprint from disturbing the soil, preclude Sprint from locating its equipment below grade. Finally, Sprint's equipment platform will blend with the existing heating plant buildings and structures.

g. All satellite dishes shall be of mesh construction, unless technical evidence is submitted demonstrating that this requirement is infeasible. Microwave dishes are exempted from this provision. Sprint is not proposing to install a satellite or microwave dish.

h. All wireless communication facilities shall be protected against unauthorized climbing or other access by the public. A condition of the permit requires that the existing facility be surrounded by a 6 foot chain link fence.

i. Whenever feasible, design and citing of towers shall avoid the need for application of Federal Aviation Administration (FAA) lighting and painting requirements. Except as required by the FAA, towers shall not be artificially lighted. No lighting or special painting is needed on the smokestack.

j. Applicants shall submit eight (8) view lines shown in a one (1) mile radius from the site, beginning at true North and continuing clockwise at forty-five (45) degree intervals. Said view lines shall, to the extent feasible, be taken from existing vantage points commonly used by the public, such as public ways, buildings or facilities. The submittal shall include unaltered photographs taken from eye level (5 feet above grade) which show the existing condition of these view lines, as well as accurate scale perspective elevation drawings, computer-altered photographs or other accurate representations showing said view lines with the facility in place. Sprint has submitted photographic simulations of the proposed facility which show that the proposed antennas and equipment platform are unobtrusive to the surrounding area.

k. Landscape plans submitted with the application shall identify all existing vegetation, shall indicate which vegetation is to be retained on-site, and shall show all proposed new vegetation and other landscape treatments. There is no landscaping proposed as part of this application. The site is already developed for use as the Amherst College steam plant and is used by other wireless carriers.

3. Co-location.

a. All new wireless communication facilities shall be co-located, to the maximum extent practicable and technologically feasible, with one or more existing wireless communication facilities, towers, buildings or other structures whose height, location and characteristics meet the needs of the proposed facility. The proposal is already a co-located facility as it is on an existing smokestack with other carriers.

b. All new wireless communication towers or support structures shall be designed, to the maximum extent practicable and technologically feasible, for collocation of antennas and other necessary facilities for at least three other wireless communication providers, shall offer space to all other providers at market rates, and shall provide for towers that can be expanded upward. Any Special Permit granted for a new facility under this section may be conditioned upon the written agreement of the facility operator to allow the co-location of other wireless communication providers on commercially reasonable terms. Sprint's proposed installation will be located on an existing smokestack that currently supports two other wireless carriers.

c. Any applicant proposing not to co-locate their facility or proposing to locate their facility in a residential district shall provide written evidence and documentation demonstrating why it is not feasible for their facility to be co-located with existing facilities or sited in other, non-residential districts. Not applicable.

4. Frequencies. All telecommunications facilities shall be operated only at Federal Communications Commission (FCC) designated frequencies, power levels and standards, including FCC Radio Frequency Emissions standards. The applicant shall provide certification demonstrating that the maximum allowable frequencies, power levels and standards will not be exceeded. Certifications shall include technical specifications, a written explanation of those specifications, and, if necessary, field verification. The Permit Granting Authority may condition any Special Permit granted under this section upon a periodic submittal of certification of compliance with said standards. Sprint is a Federal Communications Commission licensed provider of wireless services. Sprint has also submitted with this application a Radio Frequency Affidavit, prepared by Joseph Sutherland, dated March 9, 2011, which states that the radio frequency emissions associated with this wireless installation will be substantially below the applicable health and safety standards established by the FCC. Additionally, Sprint has provided a letter from David Kirk, Sprint National RF Engineering, which states that the highest predicted RF emissions on the ground near the smokestack is 0.0004% of the "General Population (Uncontrolled) Standard."

5. *Repair & Upkeep.* All wireless communication facilities shall be maintained in good order and repair. Paint finishes shall be maintained and repaired when blemishes are visible from the property line. The applicant shall provide an inspection schedule, and shall file copies of inspections with the Building Commissioner. Sprint agrees to maintain its wireless communication facility in good order and repair. All paint finishes shall be maintained and repaired when blemishes are visible from the property line(s). Finally, Sprint will provide an inspection schedule and file copies of inspections with the Building Commissioner.

6. *License & Permits.* The operator of every wireless communication facility shall submit to the Building Commissioner copies of all licenses and permits required by other agencies and governments with jurisdiction over the design, construction, location and operation of said facility, and shall maintain such licenses and permits and provide evidence of renewal or extension thereof when granted. Sprint shall submit to the Building Commissioner copies of all licenses and permits required.

7. *Removal.* All structures associated with a wireless communications use shall be removed within one (1) year of the cessation of said use. If applicable, an annual certification demonstrating continued compliance with the standards of the Federal Communications Commission, Federal Aviation Administration and the American National Standards Institute, including provisions for required maintenance, shall be filed with the Building Commissioner by the permit holder. Prior to the issuance of a building permit for a wireless communications use, the applicant shall post and submit a bond or other financial surety acceptable to the Town in an amount sufficient to cover the cost of demolishing and/or removing the facility in the event the Building Commissioner condemns the property or deems it to have been abandoned or vacant for more than one year. Said amount shall be certified by an engineer, architect or other qualified professional registered to practice in the Commonwealth of Massachusetts. In the event the posted amount does not cover the cost of demolition and/or removal, the Town may place a lien upon the property covering the difference in cost. Sprint shall remove all structures associated with this permit within one year of cessation of use.

8. *Modifications.* The Permit Granting Authority may modify any provision of these standards and conditions if it can be demonstrated that it is technically infeasible to meet said standards or conditions, or that their effect is to prohibit the proposed use throughout the Town, or if such modification will promote use of existing buildings or structures, co-location of wireless communications uses, improve safety or design, or otherwise promote the purposes of this bylaw. There are no modifications proposed or requested.

Mr. Parent MOVED to close the evidentiary portion of the public hearing. Mr. Langsdale seconded the motion and the Board VOTED unanimously to close the public hearing.

Public Meeting:

Mr. Waskiewicz asked whether there would be a generator as part of the proposal. Mr. Dahl stated that the equipment cabinets run on a battery back-up and that generator is not needed for Sprint's facility.

The Board members noted that the photo simulations were not updated to reflect the added equipment cabinets, but that the revised plans accurately reflect the potential future expansion.

The remainder of the meeting was utilized to by the Board members to discuss findings and conditions.

Specific Findings:

The Board found under Section 10.38 of the Zoning Bylaw, Specific Findings required of all Special Permits, that:

10.380 and 10.381 - The proposal is suitably located in the neighborhood in which it is proposed and/or the total Town, as deemed appropriate by the Special Permit Granting Authority; The proposal is compatible with existing Uses and other Uses permitted by right in the same District.

The proposed facility is the least intrusive installation possible and the smokestack already contains other approved wireless communication carriers. The approval will preclude the need for another facility in the area.

10.382, 10.383 and 10.385 -The proposal would not constitute a nuisance due to air and water pollution, flood, noise, odor, dust, vibration, lights, or visually offensive structures or site features; The proposal would not be a substantial inconvenience or hazard to abutters, vehicles or pedestrians; The proposal reasonably protects the adjoining premises against detrimental or offensive uses on the site, including air and water pollution, flood, noise, odor, dust, vibration, lights or visually offensive structures or site features. No noise, smoke, dust or odor will result from this proposal. The proposed wireless installation is an unmanned facility, and will only be accessed for periodic routine maintenance. As indicated in the letter from David Kirk, Sprint National RF Engineering, the highest predicted RF emissions on the ground near the smokestack is 0.0004% of the "General Population (Uncontrolled) Standard." At the base of the smokestack, which is at least 150 feet from the nearest residential abutter. A condition of the permit requires that the improvements to the smokestack indicated in the Structural Analysis and Reinforcement Design, revised May 16, 2011, be completed prior to the installation of any new equipment. The proposed facility will operate with an emergency battery back-up system which will reduce the potential for noise or odor from being generated, such as with a generator.

10.384 & 10.389 & 10.396 - Adequate and appropriate facilities would be provided for the proper operation of the proposed use; The proposal provides adequate methods of disposal and/or storage for sewage, refuse, recyclables, and other wastes resulting from the uses permitted or permissible on the site, and methods of drainage for surface water; The proposal provides screening storage areas, loading docks, dumpsters, rooftop equipment, utility buildings and similar features. The proposed facility does not require any parking, trash or recycling storage, or other storage areas. The equipment cabinets will be installed on a metal structure over the existing equipment of AT & T. As indicated in the structural analysis, the smokestack will be reinforced to properly support the proposed antenna.

10.386 - The proposal ensures that it is in conformance with the Parking and Sign regulations (Articles 7 and 8, respectively) of this Bylaw. There are no signs associated with the proposed use other than a sign showing cell site ownership and emergency telephone numbers will be placed on the equipment platform. The property is located within the Educational (ED) Zoning District where parking is not required for this use; however, no off-street parking or loading will result from the proposed use.

10.387 - The proposal provides convenient and safe vehicular pedestrian movement within the site, and in relation to adjacent streets, property or improvements. The proposed facility will only be accessed for periodic routine maintenance. Additionally, a condition of the permit requires that the area be fenced to ensure that access to the site is limited to authorized personnel only.

10.391 - *The proposal protects, to the extent feasible, unique or important natural, historic or scenic features.* There are no natural, historic or scenic features on this property. However, Sprint has minimized the visual impact of its installation by utilizing an existing smokestack. Additionally, Sprint's proposed installation will be an improvement because the antennas will be flush mounted on the smokestack.

10.393 & 10.395- *The proposal provides protection of adjacent properties by minimizing the intrusion of lighting including parking lot and exterior lighting, through use of cut-off luminaires, light shields, lowered height of light poles, screening, or similar solutions; The proposal does not create disharmony with respect to the terrain and to the use, scale and architecture of the existing buildings in the vicinity which have functional or visual relationship thereto.* Security lighting on the equipment is controlled by a photoelectric-infrared (motion detector) sensor and consists of two (2) 90-watt halogen spotlights. Lighting can be adjusted so as not to cause any objectionable glare on adjoining properties. A condition of the permit requires lighting to be downcast, minimal in its usage, and directed at the applicable equipment. The proposed antennas will be an improvement to the aesthetics of the smokestack because they will be flush mounted to the smokestack.

10.398- *The proposal is in harmony with the general purpose and intent of this Bylaw, and the goals of the Master Plan.* The proposed antennas will be an improvement to the aesthetics of the smokestack because they will be flush mounted and painted to match the color of the stack. The approval will preclude the need for another wireless communication facility in the area. Additionally, the proposed installation will benefit business and residents living, working and traveling in this area of Amherst. The proposal will support the goal of the Master Plan to "Encourage physical and technological infrastructure that support business & industrial growth".

Public Meeting – Zoning Board Decision

Mr. Parent moved to approve the application with conditions. Mr. Langsdale seconded the motion.

For all of the reasons stated above, the Board VOTED unanimously to grant a Special Permit, ZBA FY2012-00002, to install twelve (12) wireless communication antenna on an existing smokestack and install new radio equipment cabinets, under Section 3.340.2 of the Zoning Bylaw, at 151 College Street (Map 14B, Parcel 165, ED Zoning District), with conditions.

HILDA GREENBAUM

MARK PARENT

KEITH LANGSDALE

FILED THIS _____ day of _____, 2011 at _____,
in the office of the Amherst Town Clerk _____.

TWENTY-DAY APPEAL period expires, _____ 2011.

NOTICE OF DECISION mailed this _____ day of _____, 2011
to the attached list of addresses by _____, for the Board.

NOTICE OF PERMIT or Variance filed this _____ day of _____, 2011,
in the Hampshire County Registry of Deeds.